

GenCore version 4.5
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OM nucleic - nucleic search, using sw model

Run on: January 9, 2002, 21:33:40 ; Search time 4961.33 Seconds
(without alignments)
13024.702 Million cell updates/sec

Title: US-09-117-447-1
Perfect score: 3687
Sequence: 1 atcgatagaagaaagctgt.....ttacattctatattaagtaa 3687

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 17159718 seqs, 8763200856 residues
Total number of hits satisfying chosen parameters: 34319436

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Database :

Pending_Patents_NA_Main:*

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Listing first 45 summaries

SUMMARIES

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Result No.	Score	Query Match	Length	DB ID	Description
1	3687	100.0	3687	15	US-09-117-447-1
2	3687	100.0	3687	18	US-09-463-402-1
3	3599	97.6	3768	18	US-09-463-402-12
4	3598.2	97.6	4988	18	US-09-463-402-11
5	71.4	1.9	7814	55	US-60-226-176-1986
6	71.4	1.9	7814	56	US-60-233-468-1986
7	71.4	1.9	7814	64	US-60-313-371-1986
8	62.6	1.7	3579	1	PCT-US99-26796-232
9	58.8	1.6	957	18	US-09-457-659-2159
10	58.8	1.6	957	25	US-09-652-127-5964
11	57.8	1.6	3653	1	PCT-US98-12764-33
12	57.6	1.6	186935	55	US-60-226-176-1976
13	57.6	1.6	186935	56	US-60-233-468-1976
14	57.6	1.6	186935	64	US-60-313-371-1976
15	56.8	1.5	4248	18	US-09-407-679-1
16	55	1.5	1141	31	US-09-806-708A-22
17	54.6	1.5	1141	31	US-09-806-708A-22
18	54.6	1.5	22306	36	US-60-038-697-727
19	54.6	1.5	22306	37	US-60-046-714-726
20	53.8	1.5	8307	58	US-60-258-275-230
21	53.4	1.4	7218	8	US-08-466-194-14
22	53	1.4	7253	16	US-09-268-347-35
23	53	1.4	1830121	8	US-08-426-187-1
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29	52.4	1.4	867	25	US-09-641-529-448
30	52.4	1.4	867	31	US-09-838-601-2710
31	52.2	1.4	53889	31	US-09-803-736-1138
32	52.2	1.4	666448	14	US-09-012-031-312
33	52.2	1.4	666448	14	US-09-012-031B-312
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41	51	1.4	2367	13	US-08-913-196-1

42	51	1.4	2394	12	US-08-827-356-730	Sequence 730, App	
43	51	1.4	2394	14	US-09-036-082-1	Sequence 1, Appl	
44	51	1.4	2394	23	US-09-611-529-506	Sequence 506, App	
C	45	51	1.4	35914	12	US-08-831-156A-83	Sequence 83, Appl

ALIGNMENTS

RESULT 1

US-09-117-447-1

Sequence 1, Application US/09117/447

GENERAL INFORMATION:

APPLICANT: LUBITZ, Werner

APPLICANT: SLEYTR, Uwe

APPLICANT: KUEN, Beatrix

APPLICANT: TRÜPPE, Michaela

APPLICANT: HOMORKA, Stefan

APPLICANT: RESCH, Stepanka

APPLICANT: SCHROLL, Gerhard

APPLICANT: SARA, Margit

TITLE OF INVENTION: RECOMBINANT EXPRESSION OF S-LAYER PROTEINS

FILE REFERENCE: 100564-08013

CURRENT APPLICATION NUMBER: US/09/117, 447

CURRENT FILING DATE: 1998-12-02

PCT/EP97/00432

PRIOR APPLICATION NUMBER: 1997-01-31

PRIOR FILING DATE: 1996-02-01

NUMBER OF SEQ ID NOS: 10

SOFTWARE: PatentIn Ver. 2.1

SEQ ID NO 1

LENGTH: 3687

TYPE: DNA

ORGANISM: Bacillus stearothermophilus

FEATURE:

NAME/KEY: CDS

LOCATION: (1)..(3684)

NAME/KEY: sig_peptide

LOCATION: (1)..(90)

NAME/KEY: mat_peptide

LOCATION: (91)..(3684)

US-09-117-447-1

Query Match 100.0%; Score 3687; DB 15; Length 3687;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 3687; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 3661 gatactattacattcatataagtaa 3687
|||||
Db 3661 gatactattacattcatataagtaa 3687

RESULT 2

US-09-463-402-1
: Sequence 1, Application US/09463402
: GENERAL INFORMATION:
: APPLICANT: Lubitz, Werner
: APPLICANT: Resch, Stephanie
: TITLE OF INVENTION: Secretion of Carrier-bound Proteins into the Periplasm
: TITLE OF INVENTION: and into the Extracellular Space
: FILE REFERENCE: 05649059
: CURRENT APPLICATION NUMBER: US/09/463,402
: CURRENT FILING DATE: 2000-01-31
: PRIOR APPLICATION NUMBER: DE19732829.6
: PRIOR FILING DATE: 1997-07-30
: PRIOR APPLICATION NUMBER: PCT/EP98/04723
: PRIOR FILING DATE: 1998-07-27
: NUMBER OF SEQ ID NOS: 13
: SOFTWARE: Patentin Ver. 2.1
: SEQ ID NO 1
: LENGTH: 3687
: TYPE: DNA
: ORGANISM: Bacillus stearothermophilus
: FEATURE:
: NAME/KEY: CDS
: LOCATION: (1)..(3684)
: NAME/KEY: sig_peptide
: LOCATION: (1)..(90)
: NAME/KEY: mat_peptide
: LOCATION: (91)..(3684)
US-09-463-402-1

Query Match 100.0%; Score 3687; DB 18; Length 3687;

Best Local Similarity 100.0%; Pred. No. 0;
Matches 3687; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db 61 gtgcgtgcgaatcccaaacgcttcgaagcggtacacagatgtgcaacagtaagccaa 120
QY 121 gcaaaagcacagttcaaaaaagcatataacttaacagccatacagtaacggaacatg 180
Db 121 gcaaaagcacagttcaaaaaagcatataacttaacagccatacagtaacggaacatg 180
QY 181 gaattcccaaatcaatcagatgtatatactgtaatacaacaagaagcgaaaaacgatacc 240
Db 181 gaattcccaaatcaatcagatgtatatactgtaatacaacaagaagcgaaaaacgatacc 240
QY 241 gatggtgtagcattagtaataaagcaggtggcggaaaaaagacgcttacttaactg 300
Db 241 gatggtgtagcattagtaataaagcaggtggcggaaaaaagacgcttacttaactg 300
QY 301 ttacaaaagaatatagaactcagtttcaaaagcaaacccctaaatctggcggaagctg 360
Db 301 ttacaaaagaatatagaactcagtttcaaaagcaaacccctaaatctggcggaagctg 360
QY 361 gtacgaactacatcagatgtacatactatgcaacaaaattagaagaaatggcgcaagag 420
Db 361 gtacgaactacatcagatgtacatactatgcaacaaaattagaagaaatggcgcaagag 420
QY 421 ctagaaggtcgtctgttcacgaagcaaaagatttagaaaaagcagaacaaatccatacaaaat 480
Db 421 ctagaaggtcgtctgttcacgaagcaaaagatttagaaaaagcagaacaaatccatacaaaat 480

QY 481 ccttaagaaatataaacctgcacaglcattttagatcgcgtatagtaaaacaacatcgt 540
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QY 541 gatttactcgtctacatttaagaacaaaagcacaagaactcgcgcagccttaattat 600
Db 541 gatttactcgtctacatttaagaacaaaagcacaagaactcgcgcagccttaattat 600
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RESULT 3
US-09-463-402-12

Sequence 12, Application US/09463402
GENERAL INFORMATION:
APPLICANT: Lubitz, Werner
APPLICANT: Resch, Stephanie
TITLE OF INVENTION: Secretion of Carrier-bound Proteins into the Periplasm
FILE REFERENCE: 05649059
CURRENT APPLICATION NUMBER: US/09/463,402
CURRENT FILING DATE: 2000-01-31
PRIOR APPLICATION NUMBER: DE19732829.6
PRIOR FILING DATE: 1997-07-30
PRIOR APPLICATION NUMBER: PCT/EP98/04723
PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 13
SOFTWARE: Patentln Ver. 2.1
SEQ ID NO 12
LENGTH: 3768
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: fusion of SbsA
OTHER INFORMATION: with the signal sequenz of gen3 of bacteriophage
OTHER INFORMATION: fd
US-09-463-402-12

Query Match 97.6%; Score 3599; DB 18: Length 3768;
Best Local Similarity 99.3%; Pred. No. 0;
Matches 3614; Conservative 0; Mismatches 25; Indels 0; Gaps 0;

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Qy	3349	tgtgaattgacaacagctataactcagaatgtctgcagcaacacagactctggtctctgaactgtac	3408
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Qy	3409	tctggttgcggaagcagttctgccttcaattctcagaaggtatcogatttcaagaattgcaact	3468
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Qy	3649	ggtaatgttcagataactataactataactataactaaagta	3687
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<p>RESULT 4</p> <p>US-09-463-402-11</p> <p>; Sequence 11, Application US/09463402</p> <p>; GENERAL INFORMATION:</p> <p>; APPLICANT: Lubitz, Werner</p> <p>; APPLICANT: Resch, Stephanie</p> <p>; TITLE OF INVENTION: Secretion of Carrier-bound Proteins into the Periplasm</p> <p>; TITLE OF INVENTION: and Into the Extracellular Space</p> <p>; FILE REFERENCE: 05649059</p> <p>; CURRENT APPLICATION NUMBER: US/09/463, 402</p> <p>; CURRENT FILING DATE: 2000-01-31</p> <p>; PRIOR APPLICATION NUMBER: DE19732829, 6</p> <p>; PRIOR FILING DATE: 1997-07-30</p> <p>; PRIOR APPLICATION NUMBER: PCT/EP98/04723</p> <p>; PRIOR FILING DATE: 1998-07-27</p> <p>; NUMBER OF SEQ ID NOS: 13</p> <p>; SOFTWARE: Patent Ver. 2.1</p>			

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; SEQ ID NO 11
;
; LENGTH: 4988
;
; TYPE: DNA
;
; ORGANISM: Artificial Sequence
;
; FEATURE:
;
; OTHER INFORMATION: Description of Artificial Sequence: fusion of SbsA
;
; OTHER INFORMATION: and Male
;
; OS-09-463-402-11

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Query Match	97.6%	Score 3598.2;	DB 18;	Length 4988;
Best Local Similarity	99.9%	Pred. No. 0;		
Matches 3600; Conservative	0;	Mismatches 3;	Indels 0;	Gaps 0;

QY	85	gaagcggtctacaagatgaggaacagtaagtaagccaagacaaagacacattcaaaaaagca	144
Db	1249	ggatccgctacagagtagaacacagtagtaagccaagacaaagccacggtctcaaaaaagca	13080
QY	145	tactatacttacgcgcatacaagtaacggaacactggtgtcaatcccaaacattacagatgta	204
Db	1309	tactatacttacgcgcatacaagtaacggaacactggtgtcaatcccaaacattacagatgta	1368
QY	205	tatctctaatacaacaagaaggaataacgataccgtagtcggtgagcttgatgtgaataa	264
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QY	265	gcaggttcgcgcgaataaagacgcgttctcttagctgatttcaaaaagaatattgaacttac	324
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QY	325	gttttcaaaagcaaaccttaattctgtgcgaagctcgtgtgtagcaacttacaatcgatgttac	384
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QY	505	gtcaatttttagatgcgataatgtgtaaaaaaacgcgtagatttacttcgcgtctacattttaa	564
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QY	565	gcaaaaagcaacaagaacttcgcgcgaacgcttaattttagatataaccgtttgcaatggaagcg	624
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QY	685	caaatcatcaatcaacttaccacaaagtaaacagatgcttccaacctggaactacaagaatla	744
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Db	2029	aaatttaacaacttcaagctgcgtgcgaatggaatatacagtaaacgttaaatctgtaacttc	2088
QY	925	tataaagtgcgaagcgttaacatctccatttcgcttcaataagcgcgaagatgcttcttattctaca	984
Db	2089	tataaagtgcgaagcgttaacatctccatttcgcttcaataagcgcgaagatgcttcttattctaca	2148

QY	905	gacggaanaacatcatcactgtggtgtcgttcacatccatccatcgaaataataacagagatataaa	1044
Dp	2149	gacggaaaaaaactatccactgtggtgtcgttcacatccatccatcgaaataataatacagagatataaa	2208
QY	1045	gttagtaattaaagatataaagacaaaatctgacaaagaaatttaagaagatgcatctact	1104
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QY	1105	ttcaagctccgaaatgcatgctgttagttactcaagtgtlgttgaaataatgtaacaaac	1164
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Dp	2869	aaaaatgttaactcttagtgcgaanaagcggagacttaagaagaataatacattatccaatccaa	2928
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QY	2005	gttagtaanaagcgggtgcgaacattatctgctcttbaacgaagtgacatcatccagctagt	2064
Dp	3169	gttagtaanaagcgggtgcgaacattatctgctcttbaacgaagtgacatcatccagctagt	3228

QY	2065	gctgagcggcttacttgcgttcaagatgagaaatacaagaatgaaagttgcgtctgaaccaatta	2124
Db	3229	gttgaagcggcttacttgcgttccaagatggaacatacaagaatgaaagttgcgtctgaaccaatta	3288
QY	2125	gaaagttacaagaagggtacaattatgtagtgcgttcggtgaaagggtgcgaacggcttcgtttaa	2184
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QY	2245	caagaagctaaacagaccaacacggttacaacaaagtatccaagggtgatctctttaaagaacgt	2304
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Oy 1479 taactactaagggtgtaaacattatctacgtgtctctctcaacaataatgtctgtgtaa 1538
Db 2878 taactgt 2937
Oy 1539 attgctggt 1598
Db 2938 tgcctgt 2997
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Oy 1659 atctgttacaagt 1718
Db 3058 taactgt 3117
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RESULT
US-60-233-468-1986
Sequence 1986, Application US/60233468
GENERAL INFORMATION:
APPLICANT: Ring, Huijun Z.
APPLICANT: Malsen, Gareth
APPLICANT: Tomlley, David
APPLICANT: Morris, Macdonald
APPLICANT: Valdes, Ana
TITLE OF INVENTION: Single Nucleotide Polymorphisms Associated With ADME Genes
FILE REFERENCE: GX-0013-2 P
CURRENT APPLICATION NUMBER: US/60/233,468
CURRENT FILING DATE: 2000-09-18
NUMBER OF SEQ ID NOS: 2488
SOFTWARE: PERL Program
SEQ ID NO: 1986
LENGTH: 7814
TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: misc. feature
OTHER INFORMATION: GBI:AC024253_3_000004
US-60-233-468-1986

Query Match 1.9% Score 71.4; DB 56; Length 7814;
Best Local Similarity 41.4%; Pred. No. 3.4e-05;
Matches 735; Conservative 0; Mismatches 1018; Indels 24; Gaps 3;
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[illegible][illegible]

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RESULT 7
US-60-313-371-1986
; Sequence 1986, Application US/60313371
; GENERAL INFORMATION:
; APPLICANT: Ring, Huijun Z.
; APPLICANT: Malsen, Gareth
; APPLICANT: Tomlinley, David
; APPLICANT: Morris, MacDonald
; TITLE OF INVENTION: Single Nucleotide Polymorphisms Associated With ADME Genes
; FILE REFERENCE: GX-0013-5 P
; CURRENT APPLICATION NUMBER: US/60/313,371
; CURRENT FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 2447
; SOFTWARE: PERL Program
; SEQ ID NO 1986
; LENGTH: 7814
; TYPE: DNA
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: misc_feature
; OTHER INFORMATION: GBI:AC024253_3_000004
US-60-313-371-1986

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Query Match	1.9%;	Score 71.4;	DB 64;	Length 7814;
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Matches 735: Conservative 0: Mismatches 1018: Indels 24: Gaps 3:

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OY 1359 aactgtlaaacaataaactgtctatcaataatgtttaaacaattactggtttacaatgct 1418
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OY 1419 agaagcttaagatgattagtttactgcaaacagcaccagcaactggttgcacgcctcc 1478
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Db 3538 tgcgtatactgtgtctatcgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 3597
OY 2199 aaatctttagaacttaactatactatacaatttaacaacttgaaggtcaagaagctaaagc 2258
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 3598 tgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 3657
OY 2259 accaaggtttacaagaatitacaagaaggtgattctttaaagaagcgtgtagtcaagttaactac 2318
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 3658 tgcatactgtgtctatgtcgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 3714
OY 2319 acttaagaaagttgtagcgaaggtcaaaaattcaactatccaatttagcgaagaacttaaaaac 2378
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 3715 tgcgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 3774
```

```
OY 2379 tcttagtgccttctttagtgggtggcagaagtaactgttcgagaataatcaacaacagga 2438
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 3775 tgcatacttattactatgagatttctgtgtctactgctgctgctgctgctgctgctgctgctgct 3834
OY 2439 ggtatgtcgtgtactgtgaacaactgtgtatcagttgtcctcctaagacagatgcagaatgta 2498
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 3835 tgaatgtcgtgttaactcgtgtatcatgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 3894
OY 2499 agtaacagctgctgtgtgtgtatcaacttgaacattgaacaataagcagaagaatgcgaatt 2558
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 3895 gncgtcaactgymnctatttgggtccttgttaattgtgtctgtgtgtgtgtgtgtgtgtgtgtgtgt 3954
OY 2559 ggcgttcgtatgataaagatcctctactgataagatgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 2618
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 3955 tgaatgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 4014
OY 2619 taaggaanaagatatttcaatcgtttacaacaagcgtggaacacactgtagcttctgtgaa 2678
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 4015 tgcgttattgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 4056
OY 2679 agctgtcgtgtgaacaagatgtgtcaacaagcgttctgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 2738
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 4057 tgcgtgtactatctactgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 4116
OY 2739 tatalacaactaagaagcttattatgttgaatltcaatgaatgaactgaatttagcgaagttaaac 2798
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 4117 tgtgtctactaagatgaatgattgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 4176
OY 2799 tgaagaacatcgttgtttaaagatgacaggaatgtggtgtaagctgtgtgtgtgtgtgtgtgtgt 2858
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 4177 tgcatacttctgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 4233
OY 2859 agacggttcttaacaataatattgtatctactccatctcaagaataaagaactgtgtaagct 2918
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 4234 tgaattgtctatcttctgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 4293
OY 2919 ttaactcttaacaacttgacggtgtgtgagatgaagtaagtaacacatacttaatacat 2978
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 4294 tgaatcgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 4353
OY 2979 taactgttcaagactgtatctgtgaatccaaaggttatacttcaatccaaatgtgtgcagg 3038
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 4354 tgaattgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 4413
OY 3039 tgcagtttaagttgacggttcaaaaacaattatacaatt 3075
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 4414 tgcgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 4450
```

RESULT 8

```
PCT-US99-26796-232
: Sequence 232: Application PC/TUS9926796
: GENERAL INFORMATION:
: APPLICANT: United States Government as Represented by the
: APPLICANT: Secretary of the Navy
: TITLE OF INVENTION: Chromosome 2 Sequence of Human Malaria Parasite
: TITLE OF INVENTION: Chromosome Useful in Anti-malarial Vaccines and
: TITLE OF INVENTION: Diagnostic Reagents
: FILE REFERENCE:
: CURRENT APPLICATION NUMBER: PCT/US99/26796
: CURRENT FILING DATE: 1999-11-05
: NUMBER OF SEQ ID NOS: 420
: SOFTWARE: Patentin Ver. 2.1
: SEQ ID NO 232
: LENGTH: 3579
: TYPE: DNA
: ORGANISM: Plasmodium falciparum
PCT-US99-26796-232
```

Query Match 1.7%: Score 62.6; DB 1: Length 3579;

Best Local Similarity: 43.7%; Pred. No. 0.0026;
Matches 336; Conservative 0; Mismatches 424; Indels 9; Gaps 1;

```
OY 4 gatagaaanaagctgtgaacttagcaacgcaagtgctatgtcgcgaagtgatgtc 63
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 1183 gatgtagaagatacatgatgatgaagaagatacaagtgatgaagaactacagtgat 1242
OY 64 gctgaatcccaagcttcgtgaagcgtctacagatgtgacgaacggtgtgaagcca 123
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 1243 caaggaacaagaagaaacgaagtagacgaaanaaaacgaagaaagccgaagaa 1302
OY 124 aaagacagcttcaaaaagacatactactactacacgacacacgacgaacgtgtga 183
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 1303 ttagaagaagacaaagaagaatcagaanaagacaaagaagaatcagaagaataaaga 1362
OY 184 ttcccaacatcaacgatlgtatgtgaatacaacaagcgaagaaacgataccgtgat 243
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 1363 gaatcagaanaagataaagaagaatcagaanaaaacgaagaaacgtgaagaagatga 1422
OY 244 gcggtagattagtgatgaagcaggtgtggtgcgaanaaagcgtctactgtgattta 303
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 1423 gaaaaactgagacgaaanaaggaagcgaagatacaaaaagaacagatgtagatga 1482
OY 304 caaaaagataatgaacttacgctttcaaaagcaaaccttaacctgcgcgaagctgtga 363
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 1483 aaaaaagaaaagggagatgatggaaggaacagatgtatgaagaagacaaagaaaaga 1542
OY 364 gcaactcatcagatgtctacaaactatgcaacaaaattagacgaatgcygccaagatga 423
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 1543 gaagacgacgaagaaacaaagtagaagaagaaagaaacagaa-----aagacga 1593
OY 424 gaggtgtgttcaagcaaaagatttagaanaagcagaacatactatccacaatttct 483
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 1544 gaggaacagattatgaagaagatacagatgttcaagcaaaagatgaagaacaaagta 1653
OY 484 tatgaataaactcgcacagctttagatcgcgtatgtatgtatgtatgtatgtatgtat 543
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 1654 gaagaaagaagaaacgaagagagcgaagaagaactggaagaagaagaaagaaacagaa 1713
OY 544 ttactcgtctacatttaagcaaaagcacaagaacttcgcgacgcttaatttatgat 603
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 1714 gtgaaaaaaaagaaacgaagaaagcgaagagagacagattatgaagaatatacagat 1773
OY 604 attacgtgtcgaatgaagcgcggaagtagacagacgctgtgaagcgcgacatttaac 663
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 1774 gattcagacaagatgtgaaacacgaagtagaagaacacagacgcggaagacaaaga 1833
OY 664 aaagctaaagctgtgtgtatcaaatcaatacttcaaaaagtaaacagatcttctc 723
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 1834 aacgagagggagacagatgatgaaagagcaaaagtagaagaagaaacagacactagacgacaa 1893
OY 724 aaactgaactcaagaagtagcgaanaaagcattagatgcagatgaag 772
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 1894 gaagaaagcggagaaagataaagaagacgacaaagaaaagacaaag 1942
```

RESULT 9

```
US-09-457-659-2159
; Sequence 2159, Application US/09457659
; GENERAL INFORMATION:
; APPLICANT: Gearling, David P.
; APPLICANT: Comrack, Christopher
; APPLICANT: Holtzman, Douglas A.
; TITLE OF INVENTION: NOCLETIC ACID MOLECULES DERIVED FROM
; TITLE OF INVENTION: HUMAN NATURAL KILLER CELL AND HUMAN BRONCHIAL EPITHELIUM
; FILE REFERENCE: 1600.1071001
; CURRENT APPLICATION NUMBER: US/09/457, 659
; CURRENT FILING DATE: 1998-12-09
; EARLIER APPLICATION NUMBER: 60/111,677
; EARLIER FILING DATE: 1998-12-10
; EARLIER APPLICATION NUMBER: 60/113,891
; EARLIER FILING DATE: 1998-12-28
```

```
NUMBER OF SEQ. ID NOS: 2259
; SOFTWARE: FASTSEQ for Windows Version 3.0
; SEQ ID NO 2159
; LENGTH: 957
; TYPE: DNA
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: misc.feature
; LOCATION: (1)..(957)
; OTHER INFORMATION: n = A,T,C or G
US-09-457-659-2159
```

Query Match 1.6%; Score 58.8; DB 18; Length 957;
Best Local Similarity 32.9%; Pred. No. 0.011;
Matches 277; Conservative 0; Mismatches 562; Indels 3; Gaps 1;

```
OY 105 aacgtatgaagcccaagcaagacgcttcaaaaagcactactactacgcacatc 164
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 14 aaaaaaanaanaaaaaaanaaaaaaanaaaadnanaanaanaaaaaaanaaaa 73
OY 165 agtaacgaaactgtgtgaattcccaacatlaacgatlgtatgtcgtgatacaacaagc 224
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 74 aonannanaannongaaactcggaaacncataaanaatananaanaaaaaanaaaan 133
OY 225 gaaaaaacgatacgtgtgtgtgtgcatgtgtatgaataagcaggtgtgcgaaaga 284
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 134 aaaaaaanaaaaaaanaaaaaaanaaaatataaaaaannanaaaaaaanaaaan 193
OY 285 cgttacttagctgtattcaaaaagaaatgaagaacttgcgttttcaagcgaacccaa 344
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 184 aenannnnaaanaanaanaanaanaanaanaaaanaaaanaannanagaanaanaaaan 253
OY 345 atctggcgaagctcgtgtagcaacttaccatcgatgtcttacaactatgcaaca--aaat 401
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 254 aaaaaaanaannanaanaanaanaanaanaaaanaaaanaaaacaaanaaaatnanaanaanaaa 313
OY 402 agacgaaatgcccgaagcttagagcgtcgttcaagcaaaagtttagaaaagcga 461
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 314 aaaaaaanaannanaaaaaaanaaaaaaanaaaganaannananaaaaaaanaanaaa 373
OY 462 acaatctatccacaatcttcttgaataaanaactcgcacgtcattttagatcgcgt 521
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 374 aanaaaaaaannanaaaaaaanaaanaanaaaaaaanaaaaaaanaaaanaaaanacaaan 433
OY 522 atatgtlaaacaactcgtgtatttacttcgtctatcatttgaagcaaaagcagaagact 581
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 434 nanaaaaaaanaaaaaaagaaannannanaanaanaanganaaaaaaanaaaaaaanaaa 493
OY 582 tccgcagcagcttaatttatgtatattacccgttgcgaatggaagcgcggaagtagacagac 641
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 494 aaaaanaanaaannanaanganaaaaaaanaanaanaanaanaanaaaaaaanaaaaaa 553
OY 642 tgtgaagcagcgaatttagacaagctaaagctgtgtgtgaacacaaatcactt 701
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 554 nnaaaaaaanaanaanaaaaaaataaagmnnaaagaanaaataacacmnaanaaaaaa 613
OY 702 accaaagtaacagaatgtcttccaacctgaactcaagagtagcgaagaaagcattga 761
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 614 naannnaaaaaaanaanaanaaaaaaanaaaanaannananaanaaaaaaacaanaaa 673
OY 762 tgcagatgaagctgtcgttactccaaaggttgaaggtgtgaagtgatgtacactcaca 821
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 674 nanaaaaaaanaanaanaanaanaanaanaanaanaanaanaaaaaaanaaaaaa 733
OY 822 caagctgtgaattgaacagcagtgacgtagaagcgaacactaaatttaccacttcgc 881
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 734 naanaaaaaagaaagaaaaaanaaaacaaanattacaacaanamaaaaaaanaaaca 793
OY 882 tctgcaaatgaagatacgaatgaacgtaatactatgtatgtatctlaaagtgtgacgtga 941
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 794 aaaaaaanaangaaaaatnnnaanaanaanaanaanaannanaannanacgaaganaaagaanaaa 853
```

Oy 942 ca 943
Db 854 aa 855

RESULT 10
US-09-652-127-5964
: Sequence 5964, Application US/09652127
: GENERAL INFORMATION:
: APPLICANT: Shyjan, Andrew W.
: TITLE OF INVENTION: NOVEL NUCLEIC ACID MOLECULES AND USES
: FILE REFERENCE: 1600.1183-001
: CURRENT APPLICATION NUMBER: US/09/652.127
: PRIOR FILING DATE: 1999-08-30
: PRIOR APPLICATION NUMBER: 60/151,134
: NUMBER OF SEQ ID NOS: 10475
: SOFTWARE: FASTSEQ for Windows Version 4.0
: SEQ ID NO 5964
: LENGTH: 957
: TYPE: DNA
: ORGANISM: Homo sapiens
: FEATURE:
: NAME/KEY: misc.feature
: LOCATION: (1)...(957)
: OTHER INFORMATION: n = A,T,C or G
US-09-652-127-5964

Query Match 1.6%; Score 58.8; DB 25; Length 957;
Best Local Similarity 32.9%; Pred. No. 0.011;
Matches 277; Conservative 0; Mismatches 562; Indels 3; Gaps 1;

Oy 105 aacagtagtaagcagcaagcaagcagttcaaaaagcagcattactactcagccatc 164
Db 14 aaaaaaaananaaaaaaaananaaaaaaaananaaaaaaaananaaaaaaa 73
Oy 15 agtaacggaactgttgatcccaacattacagatgatatgttgatatacagaagc 224
Db 74 aaaaaaaannggaacacccggaacncaataaanatanaaaaaaaananaaaan 133
Oy 225 gaaaaacgatacgttgatcggtgacatlagtgaagaagcaggtggtcgcaaaaaga 284
Db 134 aaaaaaaananaaaaaaaananaaaaaaaananaaaaaaaananaaaaaaaan 193
Oy 285 cgctacttgctgattcacaagaatatagaactcagtttccaagcacaaccctaa 344
Db 194 aaaaaaaananaaaaaaaananaaaaaaaananaaaaaaaananaaaaaaaan 253
Oy 345 atctgagcagagctgctgtagcaactacatcgatgcttacaactatgcaaca-aaatt 401
Db 254 aaaaaaaananaaaaaaaananaaaaaaaananaaaaaaaananaaaaaaaan 313
Oy 402 agacgaaatgcgcaagcctagagctgctgttcaagcacaagaattagaaaaaagcaga 461
Db 314 aaaaaaaananaaaaaaaananaaaaaaaananaaaaaaaananaaaaaaaan 373
Oy 462 acatatactatcacaaatcccttatgaatcctaactcgcaagctcatttgatcgctg 521
Db 374 aaaaaaaananaaaaaaaananaaaaaaaananaaaaaaaananaaaaaaaan 433
Oy 522 atatgtlaaacactcgtgatttacttactgctctacatctttaaagcacaagaact 581
Db 434 aaaaaaaananaaaaaaaananaaaaaaaananaaaaaaaananaaaaaaaan 493
Oy 582 tcgagcagcttaattttagatattacggttgcagtgaagcgcgcgaagtaacaagcgc 641
Db 494 aaaaaaaananaaaaaaaananaaaaaaaananaaaaaaaananaaaaaaaan 553
Oy 642 tglgaaagcagcgaatttagacacaagcctaaagctgctgttgatcaatcaatcattct 701
Db 554 aaaaaaaananaaaaaaaananaaaaaaaananaaaaaaaananaaaaaaaan 613

Oy 702 accaaagtacaagatgcttccaacactgaactaacagagtagcgaaaaagcattaga 761
Db 614 naaaaaaaananaaaaaaaananaaaaaaaananaaaaaaaananaaaaaaaan 673
Oy 762 tgcagatgaagctgcttactccaagaagttgaagtgtaagtgcatcaactcaaaa 821
Db 674 naaaaaaaananaaaaaaaananaaaaaaaananaaaaaaaananaaaaaaaan 733
Oy 822 caaagcttgatcaaacagcagctccggtgaagcagcactaaattacacttcagc 881
Db 734 naaaaaaaagaaagagaaaaaaacaaanattacaacaanannnaaaaaaaanacaa 793
Oy 882 tgcgcaaatgaatcacagtaaacgtaatactgtagtattcctaagaagcagcgtga 941
Db 794 aaaaaaaananaaaaaaaananaaaaaaaananaaaaaaaananaaaaaaaan 853

Oy 942 ca 943
Db 854 aa 855

RESULT 11
PCT-US98-12764-33
: Sequence 33, Application PC/TUS9812764
: GENERAL INFORMATION:
: APPLICANT: Gil Choi et. al.
: TITLE OF INVENTION: Borelia burgdorferi Polynucleotides and Sequences
: NUMBER OF SEQUENCES: 15
: CORRESPONDENCE ADDRESS:
: ADDRESSEE: Human Genome Sciences, Inc.
: STREET: 9410 Key West Avenue
: CITY: Rockville
: STATE: Maryland
: COUNTRY: USA
: ZIP: 20850
: COMPUTER READABLE FORM:
: MEDIUM TYPE: Diskette, 3.50 inch, 1.4Mb storage
: COMPUTER: HP Vectra 486/33
: OPERATING SYSTEM: MSDOS version 6.2
: SOFTWARE: ASCII Text
: CURRENT APPLICATION DATA:
: APPLICATION NUMBER: PCT/US98/12764
: FILING DATE: Herewith
: CLASSIFICATION:
: PRIOR APPLICATION DATA:
: APPLICATION NUMBER:
: FILING DATE:
: ATTORNEY/AGENT INFORMATION:
: NAME: Brookes, A. Anders
: REGISTRATION NUMBER: 36,373
: REFERENCE/DOCKET NUMBER: PB370PCT
: TELECOMMUNICATION INFORMATION:
: TELEPHONE: (301) 309-8504
: TELEFAX: (301) 309-8512
: INFORMATION FOR SEQ ID NO: 33:
: SEQUENCE CHARACTERISTICS:
: LENGTH: 3653 base pairs
: TYPE: nucleic acid
: STRANDEDNESS: double
: TOPOLOGY: linear
PCT-US98-12764-33

Query Match 1.6%; Score 57.8; DB 1; Length 3653;
Best Local Similarity 49.8%; Pred. No. 0.033;
Matches 146; Conservative 0; Mismatches 147; Indels 0; Gaps 0;

Oy 615 aatgaagcgcgcgaagtaacaagacgctgtaagaagcagcgaattagaagaagc 674
Db 1365 ACTGAATAAAGTAGAGAGATCCGAGAGCTTAAGCTTACGAGAAAGAGAGAAACAGAGAA 1444
Oy 675 tgcgttgatcaaatcaatcaacttaccaaaagtaacagatgcttcaaaactgaact 734

[illegible]

```

RESULT 12
US-60-226-176-1976/C
: Sequence 1976, Application US/60226176
: GENERAL INFORMATION:
: APPLICANT: Ring, Huijun Z.
: APPLICANT: Malsen, Gareth
: APPLICANT: Townley, David
: APPLICANT: Morris, MacDonald
: TITLE OF INVENTION: Single Nucleotide Polymorphisms Associated With ADME Genes
: FILE REFERENCE: GX-0013-1 P
: CURRENT APPLICATION NUMBER: US/60/226,176
: CURRENT FILING DATE: 2000-08-16
: NUMBER OF SEQ ID NOS: 2447
: SOFTWARE: PERL Program
: SEQ ID NO 1976
: LENGTH: 186935
: TYPE: DNA
: ORGANISM: Homo sapiens
: FEATURE:
: NAME/KEY: misc_feature
: OTHER INFORMATION: GB:AC023222_3
: US-60-226-176-1976

```

Query Match	1.6%:	Score 57.6:	DB 55:	Length 186935:
Best Local Similarity	40.4%:	Pred. No. 0.19:		
Matches 691:	Conservative	0:	Mismatches 1015:	Indels 5: Gaps 2:
OY 1959	tgctacaacgcgttcgcggtagacacatcacatcagctcaaggtcgtctgttagtaaaagcgg	2018		
Db 8596	TGCTGTTGCTGATACACGTGTGCTATGCTGTTTGTATTGTGGCTGATTGTGCTGCTGC	8537		
OY 2019	tgcaaatctatctgcctcttcaagcaagtgacatcatlccagctagtggttgaagcggttac	2078		
Db 8536	TGCACTGCTGTTGTGCTGCTGCTGCACCTTATTGTTCTGCTGCTGCTGATGCTGTTATC	8477		
OY 2079	tggtcaagatggaacatcaacaagtgaaagtgcgtctacaacatcagaagctaaccaag	2138		
Db 8476	TGCGCTATTGTTCGCTGTTGTTGTTGGCTGATGCTGCTACTNCTTCTTAATGCTGTTGCG	8417		
OY 2139	gtacaatlagtagtggttcggtlaaaggtgcacaagctccgtgtlaaagatgctgcacaatgc	2198		
Db 8416	CTACTA--TTACGTGTGCTATTGTGCTGCACCTACTGCTGCTGTTGCTGCTACTGTTGT	8359		
OY 2199	aaatctttagcaactaactatcatctatcatcttcaacttcaactgaagtgcaagcaagcgc	2258		
Db 8358	TGCTACTATGTGTAATTATTGCTGCTGCTGCTGCTACTGTTGTTACTGTGATTTTCGTTGC	8299		
OY 2259	accaacggttacaanaagatctcaaaagtgatctctttaaanaagcgtgtgacacttacc	2318		
Db 8298	TACTGCTGCTGTTGCTGTTGTTTAATTGTGATGCGCAATTGCTGTTGCTGATGACGCTTTGTTGC	8239		
OY 2319	acttagaagctttatagagtgcaaaatctcaactccaactcaactttagcgaagaatataaac	2378		
Db 8238	TATTGCTGTTCTGTTGCTGATGCTGTTGCTTAATTTGCTCTTTTGTGTTGCTGCTGTTGT	8179		
OY 2379	tctcagtggtctcttagtcgggtggaagaagtiacgtcagagaatataaacaaacacgagtg	2438		

Db	8178	TCCTCGTCTGCTACTGTTGCTGT--CTTGCCTGCTCTTATTGTTGCTGCTGCTGTTC	8122
Qy	2439	ggtagagctgylactygaacaactylgalcagltgctccaaagacagatgacaatylgtaa	2498
Db	8121	TGTTTGCTGCTGCTGTTGCTGTTTTCCTGCTGCTATTGTGGTGGTGGTGCATGTC	8062
Qy	2499	aglaaacgctgctgylgyltaacttaacgylgcttgacaataacgcacaagaatgysaaat	2558
Db	8061	TGTTGCTGTTGGCTGATACGTTGCTGATCGTTGCTTTTGTATTGTTCGTTGTGCTGC	8002
Qy	2559	ggctcgytagagataagcttcctactacatgaaattgctgaagctgagcylgaatgtaat	2618
Db	8001	TGCTGCTACTGTTGTTGTTGGCTGCTGCTGCTCTTATTGTGCTGCTGCTGTGCTGTGT	7942
Qy	2619	taaggaaaaagatalttaaltcgtltacaacaagctgagagacaactylagcttgcrgaa	2678
Db	7941	TGCTGATGCTGCTACTGTTGTGCTATTGCTGTTGCTGCTACTATTCATGCTGATTCGTC	7882
Qy	2679	agctgctgctgacaagaatgylccaaagccttcctgcatcccaacaaagacgcaat	2738
Db	7881	TGCTATTGCTGCTGCTGCTGCTGCTACTGTTGTTGCTATATTGTAATGATTGCTGCTGC	7822
Qy	2739	tgatacaactaagagctlaattgltgaaatlcaatgaataactgatttagcysgaattaaac	2798
Db	7821	TGCTGCTGCTACTGTTATTATTACGCGATTTCCTTGCTACTGCTGTTGCTGTTGCTGT	7762
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Qy	3039	tgagdtlaacglttagccglttcaaaaacaattcaattgaattcagcgattcagttccaa	3098
Db	7521	TACTGTTGCTATTGCTGCTGCTACTGCTGCTGCTGCTGCTGCTACTGTTGTTGCTACTAT	7462
Qy	3099	cccaacaactcaacttlaaagaagcgtgacgysaactcattlaactlaactcaacttagtaa	3158
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Db	7221	TGTTTCTGTTGCTTTTGTATTATTGTTGCTGCTGCTGCTGCTGCTGCTGCTGCTGATGC	7162
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Qy	3459	gaatgcaactgylgacaatlaacaaatataactagatgataaaaactglttgaaagtatttcaa	3518


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